

REMARKS

The Office Action objects to the oath/declaration mailed with the application for failing to identify at least one error which is relied upon to support the reissue application under 37 CFR 1.175(a)(1). Accordingly, a supplemental oath/declaration has been submitted herewith in which the Applicant swears that the error was a failure of the prosecuting attorney to appreciate the full scope of the invention, resulting in the claims being too narrow. See In re Wilder, 736 F.2d 1516.

Presently renumbered Claims 36-89 have been rejected under 35 U.S.C. §251 as being an improper recapture of surrendered subject matter in the parent application. Particularly, the Office Action asserts that a broadening aspect is present in the reissue Independent Claims 36, 42, 49, 58, 59, and 76 that was not present in the application for patent, and that because the alleged surrendered subject matter relates to the alleged recaptured matter, the unduly narrow scope of the parent claims was not permissible error within the meaning of the reissue statute. Furthermore, the Office Actions relies on Hester Industries, Inc v. Stein, Inc., 142 F.3d 1472 (Fed. Cir. 1998), In re Clement, 131 F.3d 1464 (Fed. Cir. 1997), Ball Corp. v. United States, 729 F.2d 1429, 1436 (Fed. Cir. 1984), and Pannu v. Storz Instruments, Inc., 59 USPQ2d 1597 (Fed. Cir. 2001) as a basis for the above assertions.

Applicant respectfully submits that the Office Action has mischaracterized and misapplied the holdings of the above cases as well as the current state of the recapture doctrine. Particularly, Applicant asserts: 1) the failure to appreciate the scope of the invention as embodied in the original and parent reissue claims is an acceptable error

within the meaning of 35 U.S.C. §251 and; 2) that because no admission as to the necessity of the limitation “virtual device driver” for patentability of the invention was made on the part of Applicant, the removal of this limitation is not barred by the recapture doctrine.

Failure to Appreciate the Scope of the Invention is Acceptable Error within the Meaning of 35 U.S.C. §251

The Office Action improperly commingles the ideas of acceptable error under the statute and whether a limitation added to overcome prior art is impermissible recapture under the court-made recapture doctrine. Whether the applicant has committed “error” within the meaning of the statute is a threshold question that must be answered before the question of whether the applicant’s broadening reissue claims are barred under the recapture doctrine. As explained below, because applicant failed to appreciate the scope of the original claims, he has committed permissible error within the meaning of the statute.

After the reissue statute was updated in 1952, cases have held that “error” within the meaning of the statute should be construed liberally and should include certain instances where a limitation was deliberately omitted in the reissue claims. In re Petrow, 402 F.2d 485 (CCPA, 1968), (the CCPA further expanded the “error” requirement by stating that the error requirement is satisfied where the deliberate cancellation of claims does not amount to an admission that the reissue claims were not patentable.) Moreover, the courts have progressively and rightfully acknowledged that a patentee’s

failure to appreciate the scope of the claims of his original patent is a valid error within the meaning of the statute, In re Wilder, 736 F.2d 1516 (Fed. Cir., 1984).

Applicant has submitted presently renumbered reissue claims 36-89 for examination after realizing his failure to appreciate the full scope of the invention as embodied in the original and parent reissue claims. Furthermore, this much is declared in the accompanying oath/declaration as requested in the Office Action. Therefore, Applicant has fulfilled his obligation under 35 U.S.C. §251 for asserting an error upon that makes the original application wholly or impartially invalid as required under 37 CFR 1.175(a)(1).

**Applicant Did Not Admit that the Original Claims were Unpatentable
without the Limitation “virtual device driver”**

The Office Action asserts that because the original claims contain the limitation “virtual device driver”, the applicant is absolutely barred under the recapture doctrine from obtaining reissue claims that do not have this limitation. As case law indicates below, applicant is not barred from removing a limitation if the addition of the limitation was not an admission that the claims were unpatentable without the limitation. Furthermore, the record does not show that the Applicant has made such an admission.

Case law has consistently held that the recapture doctrine should not be a bar in those instances where the deliberate cancellation of claims does not amount to an admission that the reissue claims were not patentable; see In re Richman, 409 F.2d 269 (CCPA, 1969), In re Wesseler, 367 F.2d 838 (CCPA, 1966), In re Willingham, 282 F.2d 353 (CCPA, 1960). Furthermore, the recapture doctrine has been said not to apply where there is no evidence that the amendment of originally filed claims was an

admission that the scope of the claims were not patentable; see Seattle Box Co. v. Industrial Crating & Packing, Inc., 731 F.2d 818, (Fed. Cir. 1984).

Claim 11 of the original patent was amended in a the parent reissue application as shown by the underlined portions below:

11. A computer system comprising:
a bus;
a central processing unit (CPU) coupled to the bus running
an operating system and at least one power-unaware
application, wherein the operating system has a
virtual
device driver performing device idle detection using
one or more events timers indicating the activity level of at
least one local device, and further wherein the virtual
device driver places idle local devices in a reduced
power consumption state when associated events
timers indicate that no activity has occurred for a
predetermined
period of time transparent to said at least one power-
unaware application.

In the first Office Action issued by the patent office, claims 12-15 were rejected under 35 USC § 112, second paragraph for improper antecedent basis. Claims 12-15 originally depended on claim 11 and originally contained the term “virtual device driver”, unlike the parent claim 11 which originally only contained the term “device driver”. Applicant amended claim 11 to include the “virtual device driver” limitation, thereby overcoming the rejection of claims 12-15 under 35 USC § 112, second paragraph.

Additionally, the Examiner suggested that the “virtual device driver” limitation justified the grant of a patent. Office Action mailed 1/26/96, p. 6 (“Independent claim 1 is similar to claim 11, except that it specifies the use of *virtual* device drivers to provide power control over devices, instead of using the normal devices drivers of claim 11. As virtual device drivers have no permanent tie to specific hardware, their use in controlling power to specific hardware is considered a novel departure from normal methods of power control.”) (emphasis in original).

Applicant did not disagree. Indeed, applicant continues to agree that this limitation justifies the patentability of such claims. Applicant re-iterated the Examiner's observation with respect to claim 11 that the references Smith (US Patent 5,167,024), Stewart (US Patent 5,404,546), Kardach (US Patent 5,276,888), Mattox (US Patent 5,404,321) do not disclose the use of virtual device drivers. Response Dated 5/28/96, p. 6. Applicant noted that the same argument applied to claims 21-35 but did not amend these claims and never responded to any art rejection of these claims.

At most, the record can be taken to indicate that Applicant agreed with the Examiner that the feature "virtual device driver" was one way to distinguish the prior art. An independent justification of the Applicant's amendment is that it solved a § 112, second paragraph problem in three other claims. Applicant did not repeatedly harp on the virtual device driver as being critical or important to the invention, but rather merely agreed with the Examiner that the entire combination set forth in the claims was patentable. This was not an admission that there was nothing patentable in applicant's disclosure except inventions including a virtual device driver. Such an interpretation would be a grave distortion of the record, and to do so directly contravenes the remedial reissue statute's explicit error-correcting provision of 35 U.S.C. §251.

Conclusion

Because the Applicant has committed a permissible error within the meaning of 35 U.S.C. §251, namely, a failure to appreciate the scope of the invention as embodied in the original and parent reissue claims, the removal of the limitation, "virtual device driver", is not barred under the statute.

Furthermore, because the addition of the limitation, "virtual device driver" does not constitute an admission that this limitation is necessary for patentability, under current case law, and the absence of this limitation from presently renumbered reissue independent claims 36, 42, 49, 58, 59, and 76 does not invoke the recapture doctrine so as to bar the Examiner from allowing these and their respective dependent claims.

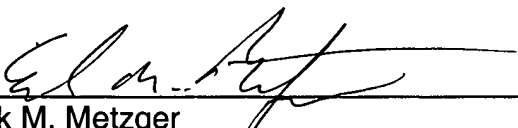
Finally, because Applicant's reissue claims are not precluded by the prior art, the claims should be allowed under 35 U.S.C. §251.

If any additional fee is required, please charge Deposit Account No. 02-2666.

Respectfully submitted,

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A “mark d-up” copy of the amended claims are provided below:

36. A machine-readable medium having stored thereon instructions, which if executed by a machine, cause said machine to perform operations comprising:
- determining an amount of time a processor is in a first power consumption state, said amount of time said processor is in said first power consumption state comprising a period of time in which a clock of said processor is stopped;
- reducing a voltage level applied to said processor in response to said amount of time said processor is in said first power consumption state.
37. The machine-readable medium of Claim 36 wherein reducing said voltage level applied to said processor is performed in response to said amount of time exceeding a selected amount of time.
38. The machine-readable medium of Claim 37 wherein determining comprises reading a timer to determine said amount of time said processor is in said first power consumption state.
39. The machine-readable medium of Claim 38 wherein said reducing said voltage level comprises placing said processor in a power-off state.
40. The machine-readable medium of Claim 36 wherein determining the amount of time said processor is in the first power consumption state comprises monitoring an

activity level demand within a computer system.

41. The machine-readable medium of Claim 40 wherein reducing the voltage level applied to the processor comprises operating said processor in a reduced power consumption state while satisfying said activity level demand.

42. A machine-readable medium having stored thereon instructions, which if executed by a machine, cause said machine to perform operations comprising:
determining an amount of time a clock of a processor is stopped;
placing said processor into a reduced power consumption state in response to said amount of time said clock of said processor is stopped.

43. The machine-readable medium of Claim 42 wherein said placing comprises reducing a voltage of said processor.

44. The machine-readable medium of Claim 43 wherein said determining an amount of time said clock of said processor is stopped contributes to determining a system idle time.

45. The machine-readable medium of Claim 44 wherein said clock of said processor is stopped when the processor is in a sleep state.

46. The machine-readable medium of Claim 45 wherein a timer is read to

determine said amount of time said processor is in said first power consumption state.

47. The machine-readable medium of Claim 46 wherein said reduced power consumption state is a power-off state.

48. The machine-readable medium of Claim 43 wherein reducing said voltage of said processor is performed in response to said amount of time said clock of said processor is stopped exceeding a selected amount of time.

49. An apparatus comprising:
a power management module to determine an amount of time a processor is in a first power consumption state, said first power consumption state comprising a period in which said processor is stopped;
a power reduction module to place said processor into a reduced power consumption state in response to said amount of time said processor is in said first power consumption state.

50. The apparatus of Claim 49 wherein said power reduction module comprises a software routine.

51. The apparatus of Claim 49 wherein said power management module comprises a timer.

52. The apparatus of Claim 50 wherein said power management module comprises a timer.

53. The apparatus of Claim 52 wherein said power reduction module is enabled to reduce a voltage applied to said processor.

54. The apparatus of Claim 53 wherein said power reduction module is enabled to reduce said voltage in response to said amount of time exceeding a selected amount of time.

55. The apparatus of Claim 54 wherein said power management module comprises a software routine.

56. The apparatus of Claim 55 wherein said first power consumption state is a sleep state.

57. The apparatus of Claim 56 wherein said reduced power consumption state is a power-off state.

58. An apparatus comprising:
a power management module to determine an amount of time a processor is in a first power consumption state, said first power consumption state comprising a

period in which said processor is stopped;

a power reduction module to place said processor into a reduced power consumption state in response to said amount of time said processor is in said first power consumption state, said power reduction module comprising a software routine, said power management module comprising a timer.

59. A system comprising:

a memory;

a processor coupled to said memory;

a power management module to detect an amount of time said processor is in a first power consumption state, said first power consumption state comprising a period of time in which a clock of said processor is stopped, said processor being placed into a reduced power consumption state in response to said amount of time said processor is in said first power consumption state.

60. The system of Claim 59 wherein said reduced power consumption state comprises a reduced voltage state of said processor.

61. The system of Claim 60 wherein said reduced voltage state comprises a power-off state.

62. The system of Claim 61 wherein said power management module is enabled to determine a system idle time.

63. The system of Claim 62 wherein said system idle time is represented by said amount of time said processor is in said first power consumption state.

64. The system of Claim 63 wherein said first power consumption state is a sleep state.

65. The system of Claim 59 wherein said power management module comprises a software routine.

66. The system of Claim 59 wherein said power management module further comprises a timer.

67. The system of Claim 65 wherein said power management module further comprises a timer.

68. The system of Claim 59 further comprising a configurable device;
power management software to power manage said configurable device.

69. The system of claim 68 further comprising:
power management software to cooperate with said device manager to
allow power management of a plurality of devices in the system which are configurable
devices, and to manage a power level for each of the plurality of devices in the system.

the power management software being capable of placing one or more of said plurality of devices in a reduced power consumption state.

70. The system of claim 69 further comprising a plug and play manager.

71. The system of claim 70 wherein said power management software is to communicate with said plug and play manager to update data structures if configuration changes occur to allow power management of dynamically reconfigurable devices.

72. The system of claim 71 wherein said power management software registers with said device manager to be notified of configuration changes.

73. The system of claim 72 wherein said power management software is to provide system level power management including the use of multiple system level power management states for said system, and to provide multiple power management states for said plurality of devices.

74. The system of claim 72 wherein said power management software is to provide support for idle detection for at least one of said plurality of devices.

75. The system of claim 72 wherein said power management software is to place the system in a sleep state when the system is idle and to keep said system in said sleep state until activity is detected, and wherein the sleep state is one of a plurality of system

power management states, and further wherein said system stops a clock for a system processor in said sleep state.

76. A method comprising:

determining an amount of time a clock of a processor is stopped;

placing said processor into a reduced power consumption state in response to said amount of time said clock of said processor is stopped.

77. The method of Claim 76 wherein said placing comprises reducing a voltage of said processor.

78. The method of Claim 77 wherein said determining said amount of time said clock of said processor is stopped contributes to determining a system idle time.

79. The method of Claim 78 wherein said clock of said processor is stopped when the processor is in a sleep state.

80. The method of Claim 79 wherein a timer is read to determine said amount of time said processor is in a first power consumption state.

81. The method of Claim 80 wherein said reduced power consumption state is a power-off state.

82. The method of Claim 81 wherein reducing said voltage of said processor is performed in response to said amount of time said clock of said processor is stopped exceeding a selected amount of time.

83. The method of claim 82 further comprising power managing in cooperation with a device manager a plurality of devices in a system which are configurable devices; and managing a power level for each of the plurality of devices in the system, the power managing comprising placing one or more of said plurality of devices in a reduced power consumption state.

84. The method of claim 83 wherein said system comprises a plug and play manager.

85. The method of claim 84 wherein said power managing comprises communicating with said plug and play manager to update data structures if configuration changes occur to allow power management of dynamically reconfigurable devices.

86. The method of claim 85 further comprising registering power management software with said device manager to be notified of configuration changes.

87. The system of claim 86 wherein said power managing comprises providing system level power management including the use of multiple system level power

management states for said system, and to provide multiple power management states for said plurality of devices.

88. The method of claim 86 wherein said power managing comprises supporting idle detection for at least one of said plurality of devices.

89. The method of claim 86 wherein said power managing comprises placing the system in a sleep state when the system is idle and to keep said system in said sleep state until activity is detected, and wherein the sleep state is one of a plurality of system power management states, and further wherein said system stops a clock for a system processor in said sleep state.